

## **DIVISION 9 MATERIALS**

### **9-00 DEFINITIONS AND TESTS**

#### **9-00.1 Fracture**

“Fractured aggregate is defined as an angular, rough, or broken surface of an aggregate particle created by crushing, or by other means. A face is considered a “fractured face” whenever one-half or more of the projected area, when viewed normal to that face, is fractured with sharp and well-defined edges: this excludes small nicks.

#### **9-00.2 Wood Waste**

Wood waste is defined as all material which, after drying to constant weight, has a specific gravity of less than 1.0.

#### **9-00.3 Test for Mass of Galvanizing**

At the option of the Engineer, the weight of zinc in ounce per square foot required by the various galvanizing Specifications may be determined by an approved magnetic thickness gage suitably checked and demonstrated for accuracy, in lieu of the other methods specified.

#### **9-00.4 Sieve Analysis of Aggregates**

Sieve analysis for acceptance of aggregate gradation shall be performed by procedures described in the WAQTC FOP for AASHTO T 27/11.

#### **9-00.5 Dust Ratio**

The dust ratio is defined as the percent of material passing the U.S. No. 200 sieve divided by the percent of material passing the U.S. No. 40 sieve.

#### **9-00.6 Sand/Silt Ratio**

The sand/silt ratio is defined as the percent of material passing the U.S. No. 10 sieve divided by the percent of material passing the U.S. No. 200 sieve.

#### **9-00.7 Galvanized Hardware, AASHTO M 232**

An acceptable alternate to hot-dip galvanizing in accordance with AASHTO M 232 will be zinc coatings mechanically deposited in accordance with AASHTO M 298, providing the minimum thickness of zinc coating is not less than that specified in AASHTO M 232, and the process will not produce hydrogen embrittlement in the base metal. Sampling and testing will be made by the Engineer in accordance with commonly recognized national standards and methods used in the laboratory of the Department of Transportation.

#### **9-00.8 Sand Equivalent**

The sand equivalent will be the average of duplicate determinations from a single sample. The sand equivalent sample will be prepared in accordance with the WSDOT Field Operating Procedure (FOP) for AASHTO T 176.

For acceptance, there must be a clear line of demarcation. If no clear line of demarcation has formed at the end of a 30 minute sedimentation period, the material will be considered as failing to meet the minimum specified sand equivalent.

**9-00.9 Field Test Procedures**

Field test procedures may be either a WSDOT Standard Operating Procedure (SOP) or a Field Operating Procedure (FOP) for an AASHTO, ASTM, or WAQTC test procedure. A Field Operating Procedure is a technically equivalent abridged version of an AASHTO, ASTM or WAQTC test procedure for use in field conditions. References to manuals containing all of these tests and procedures can be found in Section 1-06.2(1).